

WHAT IS CLAIMED IS:

1. A wide-angle lens comprising, from an object side to an image plane side:
 - a first lens group comprising:
 - a first lens having a negative refractive power, and
 - a second lens having a positive refractive power; and
 - a second lens group comprising:
 - a third lens having a negative refractive power,
 - a fourth lens having a positive refractive power, said fourth lens being bonded to said third lens, and
 - a fifth lens having a positive refractive power, said fifth lens comprising a first convex surface oriented to said object side and a second convex surface oriented to said image plane side, at least one of said convex surfaces being an aspherical surface;

wherein:

$$(1) 0.7 |R_6| < |R_8| < 1.3 |R_6|$$

$$(2) v_1 > v_2, v_3 < v_4, v_5 > 50$$

$$(3) |f_1| > 2 f_2$$

$$(4) 2.5 f_{22} > f_{21} > f_{22},$$

where R_6 is a curvature radius of an object-side surface of said third lens;

R_8 is a curvature radius of an image plane-side surface of said fourth lens;

v_i is an Abbe number of an i -th lens ($i=1-5$);

f_1 is a composite focal length of said first lens group;

f_2 is a composite focal length of said second lens group;

f_{21} is a composite focal length of said third and said fourth lenses in said second lens

22 f21 is a composite focal length of said third and said fourth lenses in said second lens
23 group;

24 f22 is a focal length of said fifth lens in said second lens group.

1 3. The wide-angle lens as described in claim 1, further comprising:
2 a glass filter oriented to said image plane side of said fifth lens.

1 4. The wide-angle lens as described in claim 3; wherein:
2 (1) $v_6 > v_5$
3 where v_6 is an Abbe number of said glass filter.

1 5. The wide-angle lens as described in claim 3, wherein said glass filter is selected from
2 the group comprising an infrared cut filter and a low-pass filter.

1 6. The wide-angle lens as described in claim 1, further comprising:
2 an aperture stop disposed between said second lens and said third lens.

1 7. The wide-angle lens as described in claim 1, further comprising:
2 a total lens length of less than or equal to 12mm.

1 8. The wide-angle lens as described in claim 1, further comprising:
2 a back focus of greater than or equal to 5mm.

1 9. The wide-angle lens as described in claim 1, further comprising:

19 v6 is an Abbe number of said glass filter;

20 f1 is a composite focal length of said first lens group;

21 f2 is a composite focal length of said second lens group;

22 f21 is a composite focal length of said third and said fourth lenses in said second lens

23 group;

24 f22 is a focal length of said fifth lens in said second lens group.